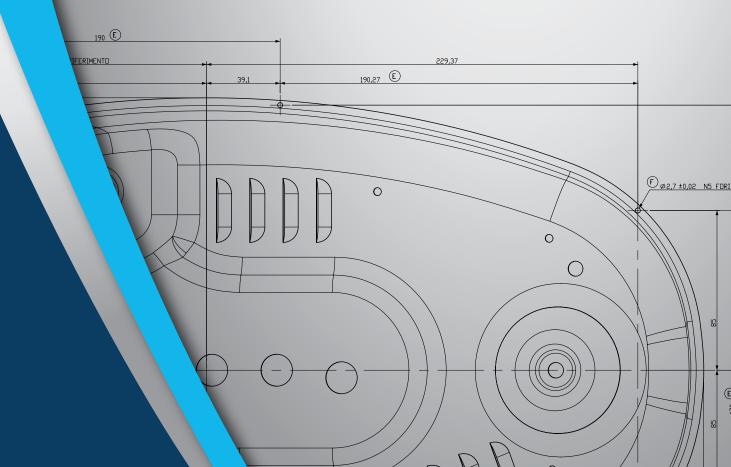


# KEY



## MADE IN ITALY

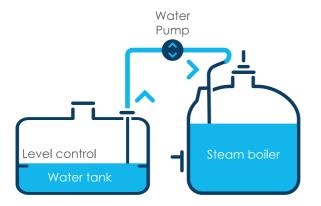


## UNLIMITED AUTONOMY

Steam cleaners with this feature have two water chambers:

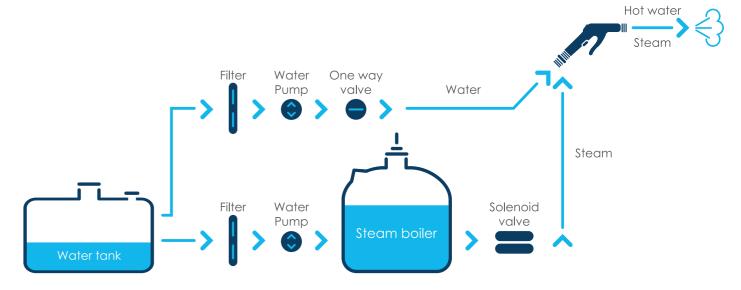
- a pressurized steam boiler;
- a non-pressurized water tank.

That allows the operator to add water into the unit while it's still running. EV 3000i unlimited autonomy steam cleaner is equipped with an electronic level sensor that refills the boiler when the level of the water inside is not enough. As a result, the unit avoids drops in pressure and temperature during the usage.



## HOT WATER EJECTION

#### Advanced technology



When cleaning certain specific places, sometimes it is necessary to use water along with steam. Most dry steam cleaners take this water directly from the boiler because they do not have the technology to extract the water from the water tank. This means that when the water from the boiler decreases, the temperature drops very quickly and then using steam becomes impossible after 40-50 seconds. In this case, you shall stop the operation, wait for a few minutes until the temperature in the boiler goes up again and reaches the necessary pressure.

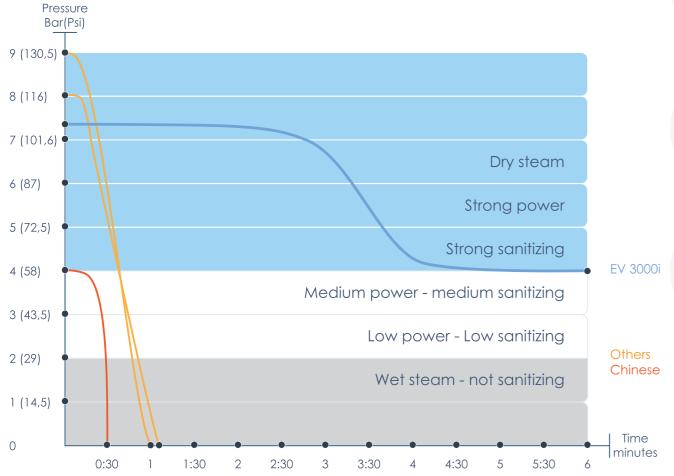
The EV 3000i has an additional water pump for this function when the water ejection is needed.

The water is pumped from the non-pressurized tank and mixes with the steam. Thus, the steam quality, the pressure and the temperature remain unchanged even after 5-10 minutes of operation with this function.



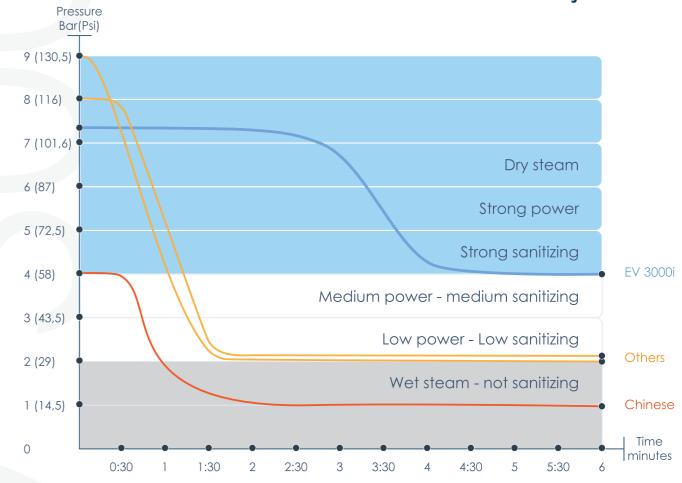
### **PRESSURE**





The operating pressure of the EV 3000i is 7 bars (101.6 Psi). This means that the unit maintains this pressure without any fluctuation for two or three minutes of continuous\* operation. The pressure then decreases but is maintained between 4 bars (58 Psi) and 5 bars (72.5 Psi) as indicated in the graphic.

#### Steam ejection



EV 3000i ejects 110 g (3.9 oz) steam per minute comparing to others that have maximum 75 g (2.6 oz) steam per minute, even through they claim to have higher starting pressure. The EV 3000i has a very strong steam power, because of the capacity of its boiler.



<sup>\*</sup>Continuous operation - when constantly pressing on the steam trigger.

### STEAM DOME

## DRY STEAM BLUE STEAM

Steam quality depends of the proper water/steam ratio in the boiler. The water probe is designed to provide the best steam quality.

#### Steam classification

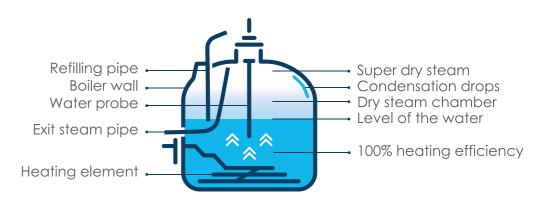
Steam itself is formed by heating water above 100 °C (212 °F). While using it for cleaning, however, a distinction shall be made between the different types of steam and the respective amount of water that they contain.

- From 100 °C (212 °F) to 130 °C (266 °F) gray steam or steam with high water content (up to 80%)
- From 130 °C (266 °F) to 150 °C (302 °F) white steam or steam with a predominant water content (between 50% and 20%)
- From 150 °C (302 °F) to 170 °C (338 °F) blue steam (or dry steam) with a minimum water content ( $\leq 5\%$ )

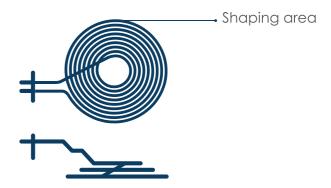
Using dry steam, the EV cleaning system can operate on almost all surfaces without damaging them.

Besides the water heating temperature, the shape of the boiler itself is very important as well. The specially designed steam dome at the top of the EV's boiler makes it possible to store a larger amount of dry steam ready for use. The other advantage of the dome is that the steam is drawn from its uppermost part, where it is impossible to retain water. This eliminates the probability of water spraying out of the steam nozzle during the operation (see the diagram).

#### Boiler EV 3000i - 2.2 L / 0.6 gal Dome shape



#### Heating Element EV 3000i



The heating elements are made out of Incoloy 800, a material designed for high temperature applications. It resists up to 750 °C (1382 °F) and will not become embrittled even after a long usage period. Each boiler is provided with a specially designed high efficiency heating element that allows a short startup time (14 W/cm2). Due to the spiral shape and whole surface coverage EV 3000i uses 100% of the heating efficiency.

## FOUR SAFETY SYSTEMS

#### SAFETY system/controls EV 3000i

- 1. Pressure switch electromechanical component set up to 7 bars (101.6 Psi). It turns off the heating elements when the pressure reaches 7 bars (101.6 Psi).
- 2. Safety valve In case of malfunctioning of the previous switch, the safety valve lets steam off when the pressure in the boiler exceeds 7 bar (101.6 Psi)
- 3. Thermostat in case of 1 and 2 do not work and the temperature is over 175  $^{\circ}$ C (347  $^{\circ}$ F), the thermostat turns off the heating elements.
- 4. Thermofusible in case of malfunctioning of all of the safety systems mentioned above, if the temperature reaches 220 °C (428 °F), the unit switches automatically off, thanks to the thermofusible.

#### SAFETY system/controls EV 3000

- 1. Pressure switch electromechanical component set up to 7 bars (101.6 Psi). It turns off the heating elements when the pressure reaches 7 bars (101.6 Psi).
- 2. Patented unscrewing cap with safety valve lets steam off in case of excessive pressure in the boiler. When the pressure of the boiler exceeds 7 bar (101.6 Psi).
- 3. Thermostat in case of 1 and 2 don not work and the temperature is over 175 °C (347 °F), the thermostat turns off the heating elements.
- 4. Thermofusible in case of malfunctioning of all of the safety systems mentioned above, if the temperature reaches 220 °C (428 °F), the unit switches automatically off, thanks to the thermofusible.



## PRODUCTION' CONTROL

Each component, as well as the entire assembling process together with the finished units are subjected to rigorous quality controls and 3 major tests.

1-st step - in line test. Performance testing of single unit parts and all pipe and electrical connections during production and assembling.

2-nd step - end of production test. General machine performance and safety parameters according to international standards.

3-rd step - termic shock test. The assembled and tested unit is set aside until all components cool down to room temperature, following which the unit is retested for 1 hour (non-stop work). 80% of all our production is termic shock tested.

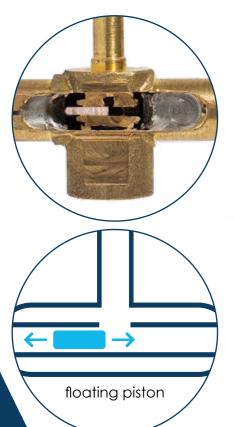
#### Boiler durability test 2.2 L - 7 bars of pressure

All boilers are subjected to a durability test to ensure their safety and strength. Their durability is 22 times the operating pressure, i.e. 154 bars (2 233.6 Psi).



## THE PATENTED BI-SOLENOID VALVE

WITH AN AUTOMATIC CLEANING SYSTEM



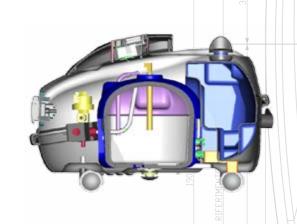


Thanks to the EV's bi-solenoid valve, the amount of steam can be adjusted in 3 different levels. This allows the cleaning of different types of surfaces. The floating piston inside the valve moves to the fixed core on the left and right in order to determine the force and the flow of steam. The central joint allows complete removal of limescale from the inside of the valve, which prevents the possibility of damage. This is not possible in all other standard electromagnetic valves.

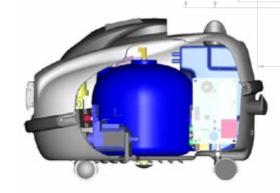
EV 3000i is the only steam cleaning system that has this technology.

110 g (3.9 oz) of steam per minute. Boiler capacity: 2.2 L (0.6 gal)

# INTERNAL TECHNICAL OFFICE WITH 3D MODELING



Each new project is developed, customized and prepared for production, thanks to the technical specialists who work with the latest 3D modeling technology. This allows the implementation of all projects "from the idea to the reality".

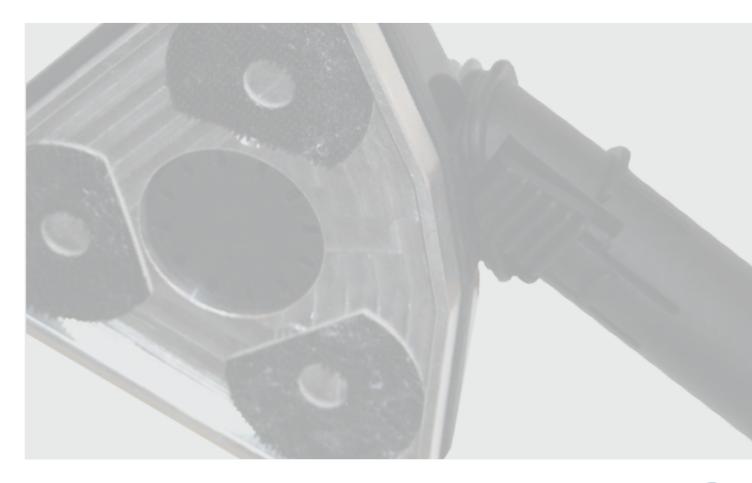


### MOLLIER'S TABLE

Temperature		Pressure	
°C .	°F	bar	Psi
60	140	0.199 20	2.89
65	149	0.250 09	3.63
70	158	0.311 62	4.52
75	167	0.385 49	5.59
80	176	0.473 60	6.87
85	185	0.578 03	8.38
90	194	0.701 09	10.17
95	203	0.845 26	12.26
100	212	1.013 25	14.70
105	221	1.208 0	17.52
110	230	1.432 7	20.74
115	239	1.690 6	24.52
120	248	1.985 4	28.80
125	257	2.321 0	33.66
130	266	2.701 3	39.18
135	275	3.130 8	45.41
140	284	3.6138	52.41
145	293	4.155 2	60.27
150	302	4.760 0	69.04
155	311	5.433 3	78.80
160	320	6.180 6	89.64
165	329	6.870 6	99.64
170	338	7.140 5	103.56
175	347	8.924 4	129.44
180	356	10.027	145.43
185	365	11.233	162.92
190	374	12.551	182.04
195	383	13.987	202.86
200	392	15.549	225.52

The Mollier's Table shows the physical relationship between the two indicators that determine the force and power of the steam cleaners. Here you can see the actual pressure that corresponds to the operating temperature. EV 3000i is working at 170 °C (338 °F) and pressure of more than 7 bars.

## CUSTOMIZED ACCESSORIES

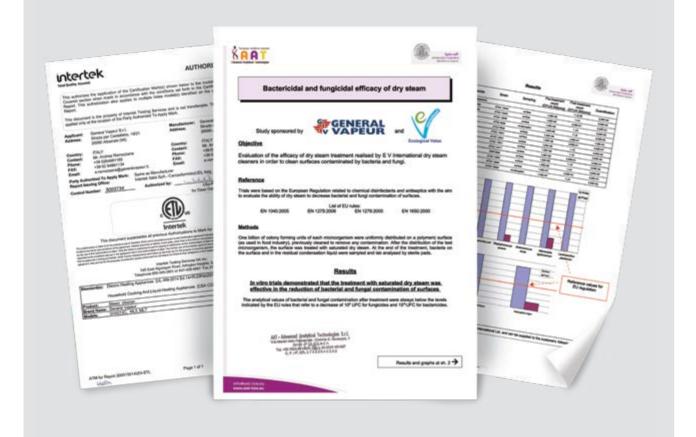


E V International Ltd. offers various accessories to the EV 3000i cleaning system, which help the almost unlimited possibilities for using the device. In addition to the standard package that comes with the device, we can also produce more specific accessories, such as pads of different hardness for different surfaces or even new brushes and nozzles.





## CERTIFICATES



E V International and General Vapeur are investing amount of resources every year to improve the features of the production. The companies are working with the most important institution like IQ Net, Intertek, Advanced Analytical Technologies etc.

E V International Ltd. informs you that the quality standards of our production and the security of the customers are guaranteed by the following certificates.









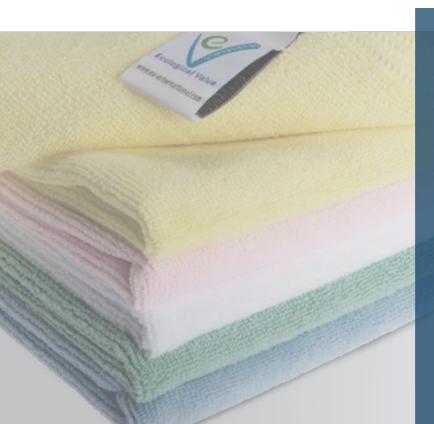








## **EV THERMOFIBERS**



### You can use EV Thermofibers for:

- o cleaning glass;
- o ceramics;
- o metal;
- o inox;
- wooden surfaces;
- o grease;
- colored surfaces /polish/;
- electrical devices;
- glasses;
- o sunglasses;
- o vehicles.

As well as for anything, that could be cleaned in a household.

The EV thermofibers are so delicate that they remove 99% from the known bacteria without any effort. You may use them damp or dry. They are much thicker and absorbent than the regular microfiber towels, which helps them to be more effective. They absorb up to 7 times their own weight, they don't leave marks or flakes. You don't have to brush again or make the surface dry.

EV thermofibers can be washed\* in a washing machine up to 95 °C (203 °F), after which they can be tumble dried. The fibers of the towels are reinforced and concentrated, so this keeps the good shape of the towel.

They are specially created to be resistable to EV's working temperature of 170 °C (338 °F).

They can be washed more than 500 times.

\* Do not use softener!



Made in Italy

E V International Ltd.® www.ev-international.com